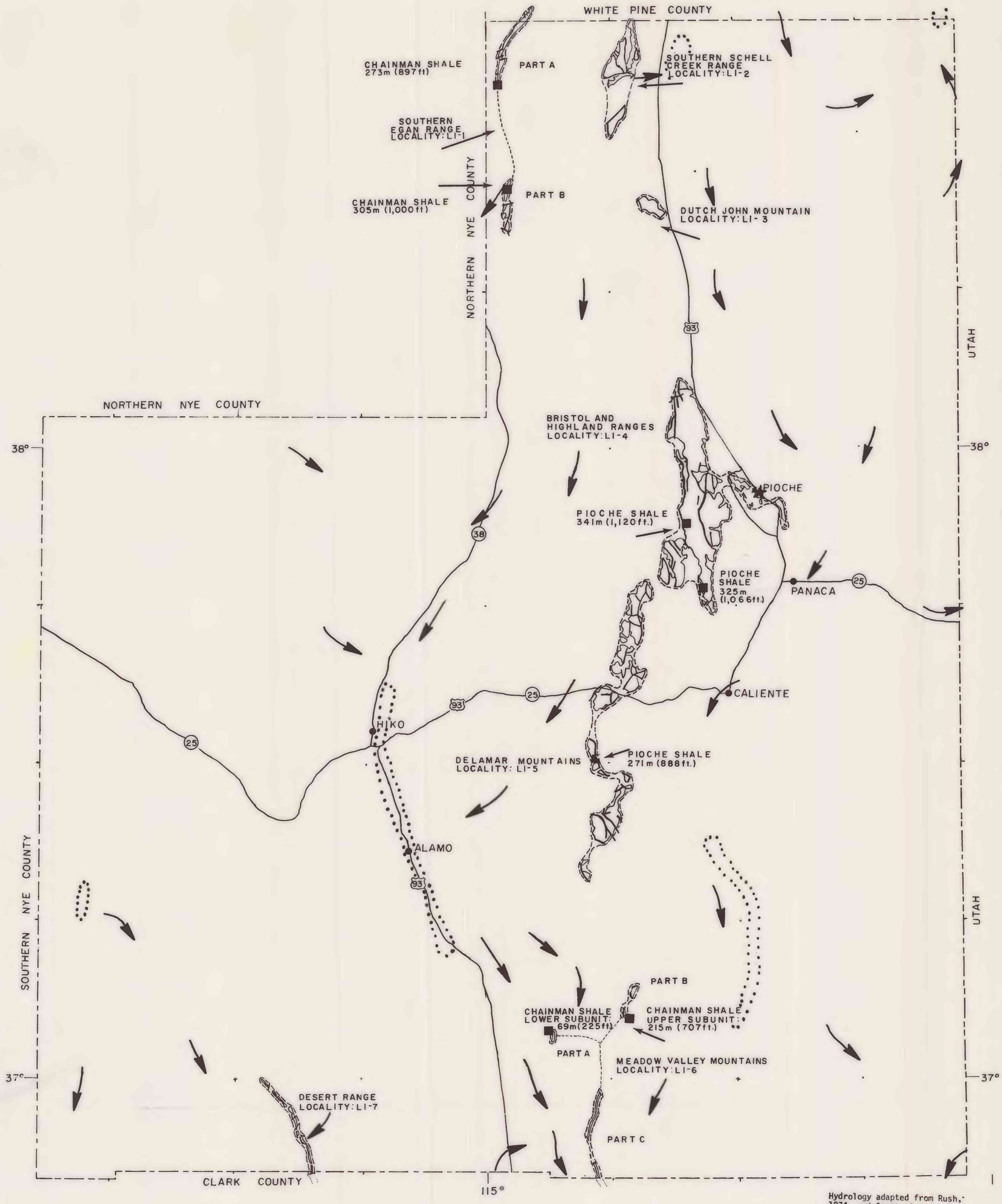

Hydrology adapted from Rush, 1974, and Scott, Smales, Rush, and VanDenburgh, 1971

LITHOLOGIES

LI-1: Southern Egan Range Locality

Chainman Shale: (Divisible into two subunits)

Upper subunit: Fissile shale, with a few calcareous siltstone interbeds; thickness from 182.9 to 213.4 m (600 to 700 ft)

Lower subunit: Mudstone and platy shale, with a few thin bands of black chert at base; thickness 46 to 91 m (150 to 300 ft)

Total thickness, undisturbed, probably 274-305 m (900-1,000 ft) (Kellogg, 1963)

LI-2: Southern Schell Creek Range Locality

Patterson Pass Shale of Kellogg (1963) (Divisible into two subunits)

Upper subunit: Calcareous shale and mudstone, interbedded with paper-thin laminae of limestone; thickness about 466 m (1,530 ft)

Lower subunit: Shale and thinly bedded calcareous siltstone; thickness about 178 m (588 ft)

Total thickness about 610 m (2,000 ft), although it may be about 457 m (1,500 ft) (Kellogg, 1963)

Chainman Shale: (No information available on this exposure; to interpolate character, see localities LI-1 and LI-3)

Pioche Shale: Micaceous, sandy to clayey shale with a few interbeds of sandstone and limestone; thickness from 229 to 305 m (750 to 1,000 ft) (Tschanz and Pampeyan, 1970)

LI-3: Dutch John Mountain Locality

Chainman Shale: (Divisible into three subunits)

Upper subunit: Silty shale with interbeds of limestone and sandy shale; thickness about 140 m (460 ft)

Middle subunit: Shale, 128 m (420 ft)

Lower subunit: Calcareous siltstone or silty limestone with interbeds of chert; thickness about 43 m (140 ft)

Total thickness about 341 m (1,120 ft) (Langenheim and Peck, 195)

LI-4: Bristol and Highland Ranges Locality

Pioche Shale: Micaceous, laminated clay shale constitutes four predominantly shale subunits; thickness of these subunits ranges from 30 to 114 m (100 to 375 ft). Interbeds predominantly of limestone (about 7 percent of total unit), or sandstone (about 1 percent of total unit), constitute intervening subunits. Thickness of these subunits ranges from 5 to 17 m (15 to 55 ft). Total thickness of unit about: 305 m (1,000 ft) near Pioche; 341 m (1,120 ft) on west flank, Highland Range; 504 m (1,655 ft) approximately 3.2 km (2 mi) south of Bennetts Pass (Merriam, 1964, Westgate and Knopf, 1932; Tschanz and Pampeyan, 1970)

LI-5: Delamar Mountains Locality

Pioche Shale: Micaceous, sandy or calcareous shale, interbedded with thinly layered to massive limestone, and one thin layer of quartzite; thickness in the Delamar vicinity is 271 m (888 ft) (Callaghan, 1937)

LI-6: Meadow Valley Mountains Locality

Chainman Shale: (Divisible into two subunits)

Upper subunit: Carbonaceous shale; thickness in Part B is 216 m (707 ft)

Lower subunit: Calcareous siltstone or silty limestone; thickness in Part A is 69 m (225 ft).

Total unit thickness in Parts A and B might be 284 m (932 ft); thins southeast, thickness of about 61 m (200 ft) reported in Part C (Tschanz and Pampeyan, 1970)

LI-7: Desert Range Locality

Pioche Shale: Micaceous, sandy or clayey shale with a few thin sandstone beds and many thin limestone layers interbedded (Tschanz and Pampeyan, 1970); thickness 183-213 m (600-700 ft) (Longwell, written commun., in Tschanz and Pampeyan, 1970)

EXPLANATION

- Locality boundary, approximate
- Locality extends into adjacent county; adjacent part shown on map of adjacent county
- Contact of exposed bedrock unit composed predominantly of clay-rich rock, with a dissimilar unit adjacent
- Fault; can constitute the contact of an exposed bedrock unit composed predominantly of clay-rich rock, with a dissimilar unit adjacent
- Location of reported thickness
- County seat
- Town or village
- U.S. Interstate Highway, with designation
- U.S. Highway, with designation
- State Route, with designation
- General direction of ground-water flow
- Boundary of discharge areas

PLATE 4. --LOCALITIES OF EXPOSED CLAY-RICH BEDROCK IN LINCOLN COUNTY, NEVADA, SUITABLE FOR FURTHER INVESTIGATION

SCALE 1:500,000

10 0 10 20 30 MILES

10 0 10 20 30 KILOMETERS